

DOCUMENT RESUME

ED 411 745

HE 030 520

TITLE Student Financial Aid. Federal Aid Awarded to Students Taking Remedial Courses. Report to the Ranking Minority Member, Subcommittee on Postsecondary Education, Training, and Life-Long Learning, Committee on Education and the Workforce, House of Representatives.

INSTITUTION General Accounting Office, Washington, DC. Health, Education, and Human Services Div.

REPORT NO GAO/HHES-97-142

PUB DATE 1997-08-00

NOTE 43p.

AVAILABLE FROM United States General Accounting Office, P.O. Box 6015, Gaithersburg, MD 20884-6015; phone: 202-512-6000; fax: 301-258-4066; World Wide Web: www.gao.gov (first copy, free; additional copies, \$2).

PUB TYPE Reports - Research (143)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS *Basic Skills; Case Studies; College Freshmen; College Sophomores; Developmental Studies Programs; *Federal Aid; High Risk Students; Higher Education; Mathematics Achievement; Racial Composition; Reading Achievement; *Remedial Instruction; School Surveys; Statistical Analysis; *Student Financial Aid; Student Placement; Two Year Colleges

ABSTRACT

The U.S. General Accounting Office surveyed 758 higher education institutions (of which 430 responded) to determine how much federal student financial aid is going towards payment for remedial courses needed by new college students to attain adequate proficiency in basic skills prior to taking college level courses. In addition, nine schools (three public 2-year schools; 3 private and 3 public 4-year schools) were chosen as case studies to examine how and why schools provide remedial education and to profile students taking these courses. The results indicated that of all financial aid awarded to underclassmen, approximately 13 percent went to freshmen and sophomores enrolled in at least one remedial course; that only 6 percent of freshmen and sophomores both received financial aid and were enrolled in remedial courses; and that approximately 4 percent of the financial aid granted to freshmen and sophomores paid for remedial courses. Most of the case study schools had formal programs for students in need of remedial education. Mandatory placement tests triggered placement in remedial programs in most instances. Generally, freshmen and racial minority students constituted a higher share of remedial course enrollments compared with their campus wide enrollments. Appendices provide additional detail on: (1) the questionnaire scope and methodology; and (2) all nine case study schools.

(DM)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

GAO

United States General Accounting Office

Report to the Ranking Minority Member,
Subcommittee on Postsecondary
Education, Training, and Life-Long
Learning, Committee on Education and
the Workforce, House of Representatives

August 1997

STUDENT FINANCIAL AID

Federal Aid Awarded to Students Taking Remedial Courses

ED 411 745

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☐ This document has been reproduced as
received from the person or organization
originating it.

☐ Minor changes have been made to improve
reproduction quality.

☐ Points of view or opinions stated in this docu-
ment do not necessarily represent official
OEI position or policy.

Health, Education, and
Human Services Division

B-271705

August 21, 1997

The Honorable Dale E. Kildee
Ranking Minority Member, Subcommittee on
Postsecondary Education, Training,
and Life-Long Learning
Committee on Education and the Workforce
House of Representatives

Dear Mr. Kildee:

Colleges commonly offer remedial instruction designed to raise students' proficiency in reading, writing, or mathematics to levels expected to be achieved in high school. Recent studies have documented the prevalence of these courses at postsecondary institutions. The American Council on Education found that 13 percent of all undergraduates completed at least one remedial course in the 1992-93 academic year.¹ In addition, the Department of Education reported that all 2-year and 81 percent of 4-year degree-granting colleges offered remedial education courses in the fall 1995 term.² This apparently widespread need for college remediation has raised concern about possible effects on appropriations earmarked for postsecondary education.

Some Congress members disapprove of allowing college students to use title IV funds (federal student financial aid³ provided under the Higher Education Act of 1965 as amended) to help finance remedial education. Federal policymakers who take this position often share some common beliefs about the relationship between college remediation and financial aid. For example, these policymakers typically believe a large portion of financial aid (1) is awarded to students enrolled in remedial education courses and (2) pays for remedial education courses. They therefore believe granting financial aid to students needing such courses may be compromising title IV's primary public policy objective: funding postsecondary education.

¹Remedial Education: An Undergraduate Student Profile, American Council on Education (Washington, D.C.: Feb. 1996).

²Remedial Education at Higher Education Institutions in Fall 1995, National Center for Education Statistics, NCES 97-584 (Washington, D.C.: Oct. 1996).

³For the rest of the report, we refer to federal student financial aid as "financial aid," unless otherwise noted.

Because the extent that title IV funds support students taking remedial education was unknown, you asked us to examine remedial education⁴ among college freshman and sophomore (underclassmen) financial aid recipients for the fall 1995 term. Specifically, we agreed to provide you with information on the share of financial aid dollars (1) awarded to underclassmen who enrolled in remedial courses and (2) used by underclassmen to pay for remedial courses. We also examined why and how colleges provide remedial education and the demographic profiles of students who take such courses.

To develop our information, we used questionnaire surveys and case studies. We mailed questionnaires to a stratified random sample of 758 degree-granting 2- and 4-year postsecondary institutions to obtain data on financial aid and remedial coursework for students who enrolled in at least one remedial course in the fall 1995 term. We conducted our case studies at nine postsecondary institutions to examine how and why schools provide remedial education and to profile students taking these courses. We visited three public 2-year schools and six 4-year schools (three of which were public and three of which were private).⁵ Because of the subject matter's sensitive nature, we agreed to maintain the confidentiality of our case study schools.⁶

Our survey results have two limitations. First, we attained a relatively low response rate: about 57 percent, or 430, of the schools responded. Consequently, the survey results are not necessarily representative of the universe of students enrolled in degree-granting postsecondary institutions or generalizable to that population. Second, the assumption underlying our assessment of how much financial aid paid for remedial education biased our results toward overestimation. For example, our estimate implicitly assumed students exclusively used financial aid to pay for tuition costs. The share of financial aid that paid for remedial courses, however, is lower than our estimate if some aid financed other education-related expenses such as housing, transportation, or textbooks. The influences of such an

⁴We defined remedial instruction as reading, writing, or mathematics courses designed for college students lacking those skills necessary to perform at the level required by their institution. For more details on our definition of remedial courses, see app. III.

⁵In choosing these schools, we took several variables into account, including (1) the percentage of freshmen who took at least one remedial course in the fall 1995 term, (2) Pell grant dollars per student, and (3) geographic location.

⁶We identify these schools as Schools A through I.

assumption make our estimate an upper limit on the portion of financial aid that could have paid for remedial coursework.⁷

Appendix I details our questionnaire scope and methodology; appendix II discusses in detail each of the case study schools.

Results in Brief

In the 430 schools that responded to our survey, underclassmen who enrolled in remedial education courses received a relatively small portion of financial aid dollars. Of all financial aid awarded to underclassmen at these schools, approximately 13 percent went to freshmen and sophomores who enrolled in at least one remedial course. In addition, only 6 percent of freshmen and sophomores at these schools both received financial aid and enrolled in remedial courses. Moreover, for our respondents, we estimated that no more than 4 percent of the financial aid granted to freshmen and sophomores paid for remedial courses.

Our nine case study schools provided remedial courses to raise their students' proficiency in reading, writing, and math skills to levels typically attained in high school. Representatives from each 2-year school viewed remedial education as an integral part of their institution's purpose, with two of three citing such coursework in their mission statements. Spokesmen for the 4-year schools saw these programs as consistent with their institutions' commitment to meeting students' educational needs.

Most schools guided students who needed remedial education through formal programs. With one exception, the case study schools used mandatory placement tests to assign students to courses commensurate with their skill level before enrollment. All the 4-year public schools required students to enroll in remedial courses if placement test scores indicated the need. The schools varied according to limits placed on and the type of credit offered for remedial courses. For example, some schools required students to complete remedial coursework by the end of their first term; others allowed students to take such courses through graduation. In addition, four schools allowed students to use these courses as electives; others did not.

Generally, freshmen and racial minorities constituted a higher share of remedial course enrollments compared with their campuswide enrollments. For example, at three 4-year schools, freshmen were

⁷For a detailed discussion on our estimation of the portion of financial aid paying for remedial coursework, see app. I.

overrepresented in remedial courses. In addition, at five schools, racial minorities typically enrolled in remedial courses at twice the proportion of their campuswide enrollments.

Background

The Congress enacted the Higher Education Act of 1965 to promote equal access to higher education. To further this goal, title IV of the act establishes financial aid programs to help make college more affordable. Title IV financial aid programs may be used to help pay for remedial education courses. Postsecondary education students may use financial aid to pay for up to 30 semester hours of remedial courses.

To reduce the resources devoted to teaching basic skills, several states are revising remedial education policies for their 4-year schools. For example, the regents for California's state university system plan to reduce the portion of entering freshmen who take remedial education courses from about 44 percent in 1994 to no more than 10 percent within the next 10 years. Along with adopting more selective admission standards, the Georgia State Board of Regents decided to reduce the portion of students taking remedial courses by 5 percent each year, beginning in 1997, and eliminate any remedial courses by 2001. Last year, the Massachusetts Board of Higher Education raised its admission standards and limited the enrollment of new freshmen in remedial courses on 4-year campuses to no more than 10 percent in 1997 and 5 percent in 1998, down from 21 percent in the fall of 1995.

At the federal level, some members of the Congress seek to improve the targeting of title IV funds by restricting the use of financial aid to postsecondary education courses. In speculating that a large percentage of students receiving financial aid use it to pay for remedial courses, these members want to eliminate the financial aid awarded to students needing such courses and reallocate it to more qualified students. According to these members, the Congress could materially augment or enhance the financial aid packages of students remaining eligible for title IV funding without providing additional appropriations.

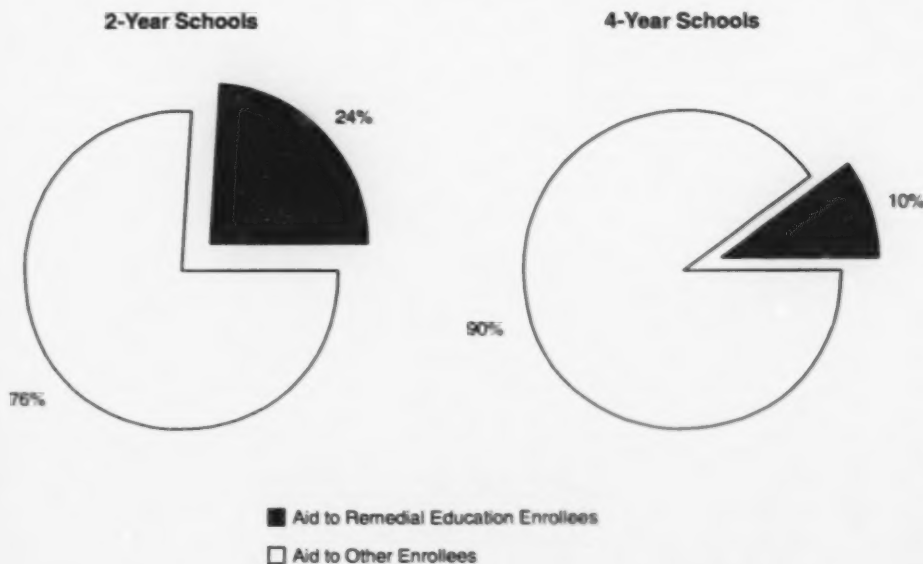
Proponents of allowing financial aid recipients to take remedial courses have defended the current policy. They say the policy is critical to promoting access to higher education, especially for economically and socially disadvantaged students. Because many students who require college remediation graduated from schools in resource-poor school districts, these proponents contend that such students have deficiencies in

basic skills through no fault of their own. In addition, these proponents point out that nontraditional students often need such courses because their skills have deteriorated from being out of school for long periods.

Percentage of Aid Awarded to Students Taking Remedial Courses

At the 430 schools that responded to our survey, underclassmen enrolled in remedial courses received relatively few financial aid dollars in the fall 1995 term. At these schools, about 13 percent of the financial aid awarded to freshmen and sophomores went to those who took a remedial education course. Students who took remedial courses at the 2-year schools, however, received more than twice the proportion of financial aid that underclassmen who attended 4-year schools received (see fig. 1).

Figure 1: Percentage of Aid Awarded to Students Taking Remedial Courses



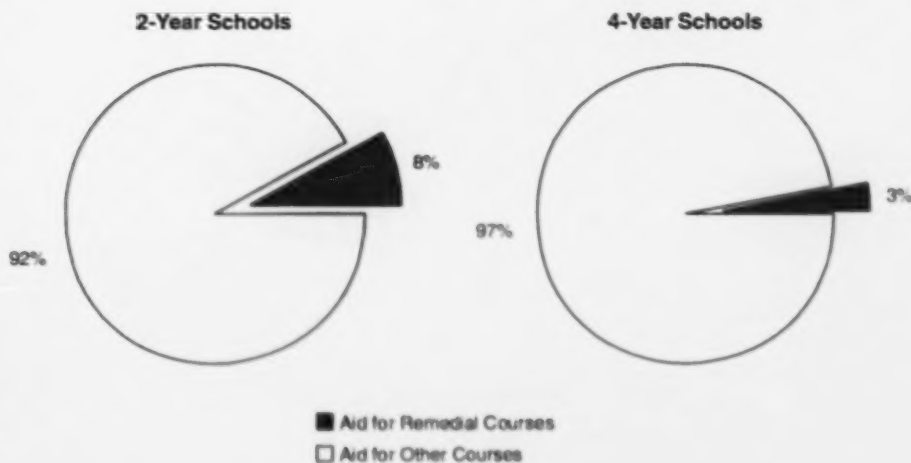
At the 430 schools responding to our survey, relatively few freshmen and sophomores both received aid and enrolled in remedial courses in the fall 1995 term. Only 6 percent of the freshmen and sophomores at these schools both received financial aid and took at least one remedial course.

The proportion of freshman and sophomore aid recipients enrolled in remedial courses was two times higher at 2-year schools than 4-year schools—about 25 and 12 percent, respectively.

Percentage of Financial Aid That Could Have Paid for Remedial Education Courses

At the 430 schools responding to our survey, only a small portion of financial aid dollars could have paid for remedial courses in the fall 1995 term. Overall, we estimated that no more than about 4 percent of aid dollars awarded to freshmen and sophomores paid for remedial courses. A higher proportion of financial aid dollars could have paid for remedial courses at the 2-year schools than at 4-year schools. For financial aid recipients at the 2-year schools, about 8 percent of aid dollars could have paid for remedial courses compared with about 3 percent at 4-year schools for underclassman aid recipients (see fig. 2). On average, students enrolled in remedial courses at 2-year schools registered for about 4.9 credit hours or units in remedial courses; similar students attending 4-year schools registered for about 4.1 remedial credit hours or units.

Figure 2: Percentage of Financial Aid Paid for Remedial Courses



Remedial Education Programs

Our nine case study schools provided remedial courses to raise their students' proficiency in reading, writing, and math to levels typically attained in high school. Consistent with their open enrollment policy, two of the three 2-year schools' mission statements specifically cited remedial education as an integral part of their mission, which emphasized access. In contrast, the 4-year schools' mission statements did not specifically address remedial education, but for retention purposes, provided remedial education to otherwise capable students who need extra help to meet the challenges of college-level work.

Most of our case study schools guided students who needed remedial education through formal programs, which all six 4-year schools provided. The schools' programs combined remedial instruction with student support interventions reserved for students enrolled in these courses such as academic counseling and mentoring. Two schools administered their programs only during the regular academic year; two others had both a summer pre-enrollment and an academic year program. The other two schools exclusively used summer pre-enrollment programs and, while offering remedial instruction during the academic year, did not provide any coordinated services. Although the three 2-year schools provided remedial instruction and student support interventions, they did not combine them into a formal program.

Most of the case study schools used mandatory placement tests to assign students to courses commensurate with their skill level before enrollment. Seven schools (four 4-year and three 2-year) used pre-enrollment placement tests to assign students to either remedial, regular, or advanced college-level curricula. These schools administered placement tests, which focused on reading, writing, and math skills, to all entering freshmen and in some cases to transfer students. Four of these schools (three 4-year and one 2-year) required students to enroll in remedial courses if test scores indicated the need; remedial education courses were optional for students at the remaining three schools (one 4-year and two 2-year). On average, students attending 2-year schools who enrolled in remedial courses registered for about 5.0 credit hours or units in remedial courses; similar students attending 4-year schools registered for about 5.6 credit hours or units in the fall 1995 term.

Restrictions placed on remedial education programs varied among the case study schools. For example, two 4-year schools required students to complete remedial coursework by the end of their first term; another 4-year school allowed up to 2 years. The other six schools allowed

students to take remedial courses through graduation. Furthermore, two schools (both 4-year) did not allow students to repeat remedial courses; four schools (two 2-year and two 4-year) limited the number of times students could repeat remedial courses. All nine schools, however, required their students—whether enrolled in remedial or college-level courses—to progress satisfactorily toward graduation to qualify for financial aid.

In addition, the type of credit offered for remedial courses varied among the case study schools. Schools awarded either institutional⁸ or elective credits. Five schools (three 4-year and two 2-year) offered institutional credit for these courses; four schools (three 4-year and one 2-year) allowed students to use these courses as electives that would count toward graduation.

Freshman and Racial Minority Enrollment in Remedial Courses

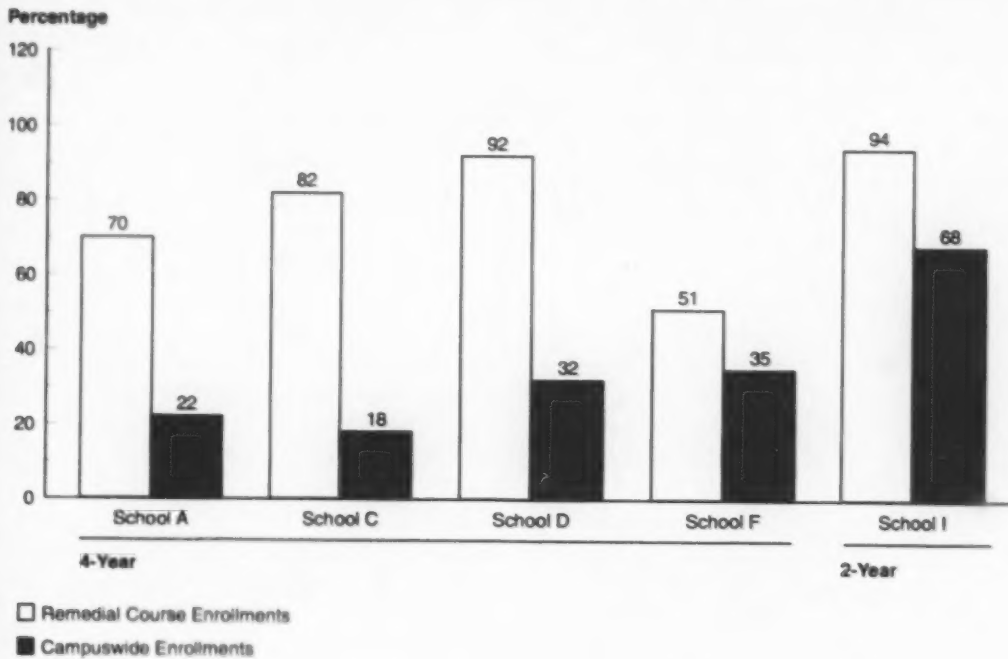
For most of the case study schools that provided demographic data, freshmen and racial minorities constituted a larger share of students enrolled in remedial courses compared with their campuswide enrollments. At four of the six 4-year schools that provided demographic data, freshmen accounted for at least 50 percent of remedial course enrollments; they accounted for between 18 and 35 percent of overall student body enrollments (see fig. 3).⁹ At four of the six 4-year schools that provided demographic data, racial minorities' share of remedial course enrollments ranged from 32 to 92 percent, typically almost twice the proportion of their campuswide enrollments (see fig. 4).¹⁰ At one 2-year school, freshmen accounted for about 94 percent of the remedial course enrollments but only about 68 percent of its student body. Similarly, at this school, racial minorities accounted for 35 percent of the remedial education course enrollments but only 20 percent of the student body.¹¹

⁸Courses receiving institutional credit allow students to attain full-time status and be eligible for financial aid. These courses do not count toward graduation requirements, however.

⁹The other 4-year schools limited remedial course enrollments to freshmen.

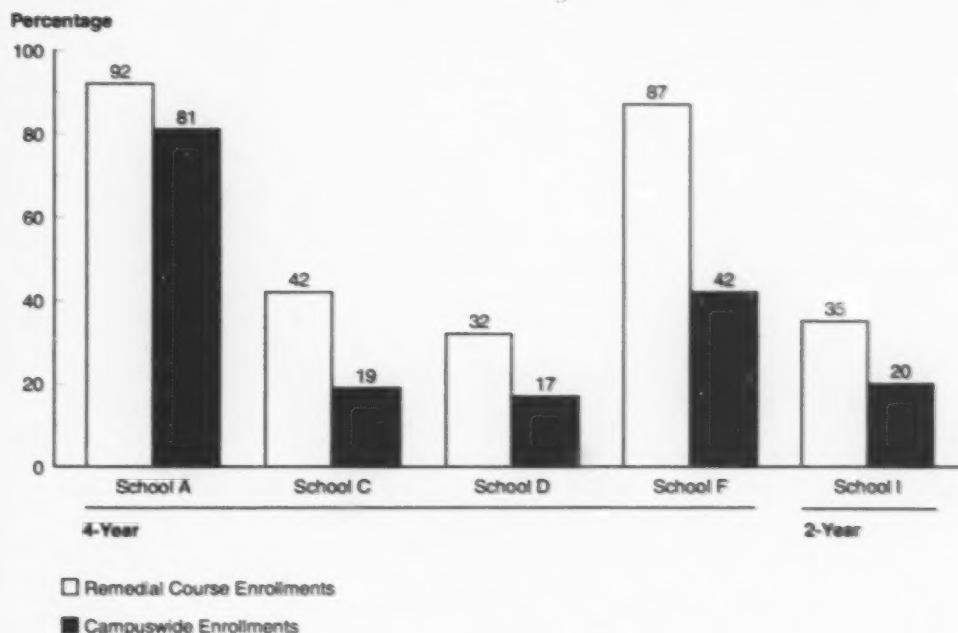
¹⁰One 4-year school was not included because it is a historically black public university. At the remaining 4-year school, which limited remedial course enrollments to freshmen, racial minorities accounted for 48 percent of all remedial enrollments but only 23 percent of all freshmen.

¹¹The remaining two 2-year schools did not provide demographic data.

Figure 3: Freshmen as a Percentage of Remedial Course and Campuswide Enrollments

Note: Schools B and E limited remedial enrollments to freshmen. Schools G and H (2-year schools) did not provide demographic data.

Figure 4: Racial Minorities as a Percentage of Remedial Course and Campuswide Enrollments



Note: Schools B and E were not included. School B is a historically black public university. School E limited remedial course enrollments to freshmen. Among freshmen at School E, racial minorities accounted for 48 percent of all remedial course enrollments but only 23 percent of all freshmen. Schools G and H (2-year schools) did not provide demographic data.

Conclusions

The results from the 430 schools responding to our survey raise questions about some preconceived notions about the relationship between college remediation and financial aid. Though not definitive of the national picture, relatively few financial aid dollars were associated with college remediation at the schools responding to our survey. For these schools, about 13 percent of the financial aid awarded to underclassmen went to those enrolled in remedial courses. In addition, for these schools, our calculations show that no more than 4 percent of the financial aid granted to underclassmen could have paid for remedial courses. Consequently, for the schools responding to our survey, it is unclear whether eliminating

financial aid associated with remedial education would have presented meaningful opportunities to reprogram title IV funds.

Agency Comments

Officials at the Department of Education reviewed this report and provided no comments.

We are sending copies of this report to the appropriate House and Senate committees, the Secretary of Education, and other interested parties. We will also make copies available to others on request.

This report was prepared under the direction of Wayne B. Upshaw, Assistant Director. If you or your staff have any questions concerning this report, please call me at (202) 512-7014 or Tamara A. Lumpkin, Evaluator-in-Charge, at (202) 512-5699. Other contributors to this report are listed in appendix III.

Sincerely yours,

Cornelia M. Blanchette

Cornelia M. Blanchette
Associate Director, Education
and Employment Issues

Contents

Letter		1
Appendix I		14
Questionnaire Scope and Methodology	Sampling Procedures and Response Rate	14
	Scope of Information	15
	Data Validation	16
	Sampling Errors and Sample Weights	16
	Estimation of Financial Aid Paying for Remedial Courses	16
Appendix II		18
Case Studies of the Use of Remedial Programs at Nine Schools	Site Selection	18
	Profile of School A	19
	Profile of School B	22
	Profile of School C	24
	Profile of School D	27
	Profile of School E	30
	Profile of School F	32
	Profile of School G	34
	Profile of School H	35
	Profile of School I	36
Appendix III		39
GAO Contacts and Staff Acknowledgments	GAO Contacts	39
	Acknowledgments	39
Tables		
	Table I.1: Adjusted Populations, Adjusted Sample Sizes, Number of Respondents, and Response Rate for Our Surveys	15
	Table II.1: Schools Selected for Case Studies	18
	Table II.2: Relationship Between Student Aid and Remedial Education at Case Study Schools	19
	Table II.3: Comparison of Average SAT Scores and Average GPAs Among Freshmen Enrolled in Remedial Courses and Total Freshman Class at School D, Fall 1995	30
Figures		
	Figure 1: Percentage of Aid Awarded to Students Taking Remedial Courses	5
	Figure 2: Percentage of Financial Aid Paid for Remedial Courses	6

Contents

Figure 3: Freshmen as a Percentage of Remedial Course and Campuswide Enrollments	9
Figure 4: Racial Minorities as a Percentage of Remedial Course and Campuswide Enrollments	10
Figure II.1: School A—Mostly Freshmen Enrolled in Remedial Courses	22
Figure II.2: School C—Decrease in Need for Remedial Coursework	25
Figure II.3: School C—Mostly Freshmen Enrolled in Remedial Courses	27
Figure II.4: School D—Remedial and Compuswide Enrollments Among Students by Race	29

Abbreviations

ACT	American College Test
CRP	College Restoration Program
GED	general equivalency diploma
GPA	grade-point average
NCES	National Center for Education Statistics
PEQIS	Postsecondary Education Quick Information Survey
REEP	Retention Enhanced Education Program
SAT	Scholastic Achievement Test
SBP	Summer Bridge Program
SSP	Student Support Program
SSS	Student Support Services

Questionnaire Scope and Methodology

This appendix describes the sampling procedures used in conducting our survey and its response rate. It also details the information in the survey, our efforts to validate the data, and the assumptions underlying our estimate of the portion of financial aid that paid for remedial coursework.

Sampling Procedures and Response Rate

For our survey, we developed two questionnaires, one each for 2- and 4-year postsecondary degree-granting institutions. We mailed the questionnaires to the financial aid directors at a stratified random sample of 295 2-year and 495 4-year schools.

We surveyed schools that constituted the Department of Education's Postsecondary Education Quick Information Survey (PEQIS) sample. We chose this sample because Education, through its National Center for Education Statistics (NCES), had already surveyed these schools regarding remedial education. The PEQIS sample is a stratified random sample, with several strata, including public and private (nonprofit and for-profit) 2- and 4-year institutions, categorized by size. Because we sought information only for undergraduate students at degree-granting institutions, we deleted proprietary schools, schools not considered institutions of higher education,¹² and graduate or professional schools¹³ from this sample. The adjusted sample of 758 schools represented an adjusted population of 3,243 schools. We received responses from 430 of 758 schools in our adjusted sample—a response rate of 57 percent. Table I.1 shows the adjusted populations, adjusted sample sizes, number of respondents, and response rate from our surveys.

¹²An institution of higher education is an institution accredited at the college level by an association or agency recognized by the Secretary of Education.

¹³We could not identify which schools were graduate or professional schools in the PEQIS database. Therefore, these schools were initially included in our sample and surveyed. In response to our survey, however, officials at 32 of these schools identified them as graduate or professional schools so we deleted them from our survey. An unknown number of nonrespondents may also have been only graduate or professional schools.

Table I.1: Adjusted Populations, Adjusted Sample Sizes, Number of Respondents, and Response Rate for Our Surveys

Type of school	Adjusted population	Adjusted sample size	Respondents	Response rate (percent)
All schools	3,243	758	430	56.7
2-year schools				
Public	974	263	134	51.0
Private	167	31	19	61.3
Total	1,141	294	153	52.0
4-year schools				
Public	615	244	154	63.1
Private	1,487	220	123	55.9
Total	2,102	464	277	59.7

To increase the response rate, we mailed the survey three times and made several follow-up telephone calls to schools. In making these telephone calls, we learned that technical, staffing, and time constraints prevented schools from responding. Regarding technical constraints, many schools lacked integrated registration and financial aid databases. Without integrated databases, completing the survey would have required an extremely labor-intensive effort to either manually calculate or develop computer programs to reconcile the two databases. In addition, many of the schools that had integrated databases faced staffing and time constraints that precluded them from developing the computer programs needed to generate the requested data.

Scope of Information

The questionnaires asked for information on freshmen and sophomores in the fall 1995 term regarding the number of (1) financial aid recipients and the types and amounts of aid awarded, (2) financial aid recipients enrolled in remedial courses, (3) students not awarded financial aid and the number of these students who took remedial courses, and (4) financial aid recipients' and other students' hours or units registered in both college-level and remedial courses.

We also obtained information on juniors and seniors from 4-year schools on (1) the total number of upperclassmen, (2) upperclassmen who received aid and the amount they received, (3) these students' hours or units registered in both college-level and remedial courses, and (4) upperclassmen who took at least one remedial course. To encourage schools to respond to our survey, we aggregated the data to preclude identifying specific schools.

Our questionnaire used the term "developmental/remedial courses" and defined these as reading, writing, or mathematics courses offered by institutions that are (1) designed for college students lacking those skills necessary to perform at the level required by the institution; (2) designed to bring such students up to college-level work; (3) defined by the institution as developmental/remedial; and (4) counted for federal aid purposes, regardless of whether or not they granted degree credit. We excluded English as a Second Language courses taught primarily to foreign students who have F-1 visas and courses offered by other institutions.

In addition, we gathered information on all title IV federal student financial aid that these students received. This included Supplemental Educational Opportunity Grants and Pell grants, Federal Family Education Loans and Direct Loans, Perkins Loans, and Federal Work Study. For campus-based aid programs, we asked schools to include their portion as well as the federal portion. We asked schools to exclude all other types of federal aid such as the federal portion of State Student Incentive Grants.

Data Validation

To test the survey's internal validity, we included questions to which the responses should have been internally consistent. For example, we asked for the total number of students receiving aid and then asked for disaggregated data on students by types of aid awarded. In some cases, the disaggregated data did not correspond with the total number of students receiving aid. When we identified discrepancies, we contacted the school for clarification.

Sampling Errors and Sample Weights

Because our response rate was inadequate, we did not estimate population totals or averages or calculate sampling errors. As such, our results are sample specific, pertaining only to the 430 survey respondents.

We used the PEQIS base sample weights to reflect the PEQIS sample design. We adjusted our results using base weights assigned as part of PEQIS.

Estimation of Financial Aid Paying for Remedial Courses

Because we lacked data on education-related costs, our estimate of how much financial aid paid for remedial education has certain limitations. Specifically, the assumptions about students' total education-related costs underlying our estimate biased our results toward overestimation. In assuming that students used their financial aid only to pay tuition, we

treated tuition as students' only educational expense, excluding other education-related expenses such as housing, transportation, and books.

To the extent that financial aid pays for more than simply tuition, our estimate constitutes an upper limit on the percentage of aid supporting remedial education. For illustrative purposes, consider the following example: If a student received \$1,000 in financial aid and enrolled for 12 credit hours—3 remedial and 9 regular credit hours—our estimate assumed that a fourth of the financial aid award, or \$250, paid for the remedial course hours.¹⁴ However, if the same student's tuition equaled \$4,000 and other education-related expenses equaled \$4,000, for a total cost of \$8,000, it would be reasonable to assume that half the financial aid award (\$500) was used to help pay for tuition and the remaining half helped pay other education-related expenses. Because remedial courses equaled a fourth of the student's courseload, the proportion of financial aid used to pay for remedial courses would be a fourth of \$500, or \$125—half the amount derived from our estimate.

¹⁴We assumed that the percentage of financial aid paying for remedial work equaled the proportion of a student's courseload of remedial courses.

Case Studies of the Use of Remedial Programs at Nine Schools

This appendix describes in detail our case study schools' remedial education programs. Besides summarizing school officials' statements and opinions, it presents data on the retention and graduation rates of students who enrolled in remedial courses, as well as their demographic profiles, whenever possible.

Site Selection

We selected schools on the basis of two factors: (1) percentage of entering freshmen who completed at least one remedial course in fall 1995 and (2) Pell grant dollars per student. We used data from the NCES Remedial Education in Higher Education Institutions Survey to determine freshmen enrollments in remedial courses. For Pell grants, we collected data from the National Student Loan Database System on sample schools' aggregated dollars in the Pell grant program and divided those dollars by their total student body enrollments to construct a dollars-per-student measure. We then assigned schools to one of the following three categories: (1) high remedial course enrollments and high Pell grant awards per student, (2) high remedial course enrollments and low Pell grant awards per student, or (3) low remedial course enrollments and high Pell grant awards per student.¹⁵ From each category, we chose two 4-year schools—one public and one private—and one 2-year public school. We also considered geographic diversity and school size when selecting the schools.

Table II.1 shows each school's category on the basis of these preliminary data.

Table II.1: Schools Selected for Case Studies

Federal aid	Remedial enrollments	
	High	Low
High	School A School F School G	School B School E School I
Low	School C School D School H	No schools selected

For the nine case study schools we visited, table II.2 shows the percent of (1) financial aid received by students enrolled in remedial education courses, (2) students awarded financial aid and enrolled in remedial courses, and (3) financial aid that could have paid for remedial courses.

¹⁵These categories were defined relative to each sector of public and private 2- and 4-year schools.

**Table II.2: Relationship Between
Student Aid and Remedial Education
at Case Study Schools**

School	Percent of financial aid received by students enrolled in remedial courses	Percent of students receiving financial aid and enrolled in remedial courses	Maximum percent of financial aid paying for remedial courses
4-year			
A	15	8	5
B	8	8	4
C	12	5	2
D	9	5	2
E	0.3	0.2	0.2
F	20	9	13
2-year			
G	39	16	21
H	32	4	17
I	17	5	9

Profile of School A

We classified School A, a large, west coast public 4-year university, as a high remedial enrollment (53 percent of freshmen) and a high per capita Pell grant award (\$510 average per student) institution. Overall, about 11 percent of its 13,000 undergraduates took remedial courses.

School A has a moderately selective admissions policy. To gain admission, students must rank in the upper third of their high school graduating class. The school uses a special-admissions category, however, to facilitate access for some students from underrepresented groups such as low-income and first-generation students. In total, the school allots about 388 slots each year for special-admissions students. According to school officials, these students account for approximately 25 percent of the school's first-time freshmen.

School A has offered remedial courses since 1967. Its mission states that it will help students in acquiring and mastering college-level skills to make them competitive in the marketplace. School A's officials said remedial education facilitates this goal. In addition, its title III school status emphasizes the need for this school to offer remedial courses.¹⁶

¹⁶Title III is a federal program for postsecondary institutions that serve a high percentage of disadvantaged students. Federal funds are provided, through grants, to help students succeed academically through special services.

School A's officials said its remedial education curriculum has affected student retention rates, although they could only provide anecdotal evidence. For example, remedial courses serve as a refresher for some historically high-achieving students, such as those graduating from high school honors programs, who sometimes encounter transition problems once they enter college, these officials said. For these students, remedial courses help bolster their confidence. Without these courses, the officials said, these promising students may take college-level classes too soon and become discouraged. A large number of students speak a language other than English at home and are English as a Second Language students. Many of these students must take remedial courses as well.

Implementation of Remedial Programs

School A requires that entering freshmen and transfers who have not satisfied college-level English and math requirements at their previous institutions take pre-enrollment proficiency exams in English and math. If indicated by the tests' results, these students must take remedial courses. School A offers remedial courses mainly in English and math and grants four institutional credits for each of these courses; however, these credits do not count toward graduation requirements.¹⁷

School A offers two remedial courses in English to help students develop writing skills. Students needing remedial math attend courses ranging from pre-algebra to intermediate algebra to prepare them for college math courses. School A does not limit the number of remedial courses a student may take; however, it does not permit students who receive two noncredit grades in a course to re-enroll a third time.

School A helps students who need remedial education under two programs. The first program, the Student Support Program (SSP),¹⁸ targets low-income first-generation college students. Most students enrolled in SSP need remedial coursework.

School A also conducts a summer program, known as the Summer Bridge Program (SBP), primarily for Educational Opportunity Program¹⁹ special-admission students. Students in SBP come from disadvantaged

¹⁷School A also offers remedial courses in chemistry and speech.

¹⁸SSP is part of the Department of Education's TRIO programs. This program helps postsecondary students from disadvantaged backgrounds who need academic support to successfully complete their education.

¹⁹The Educational Opportunity Program serves low-income and underrepresented ethnic students disadvantaged due to their economic and educational background.

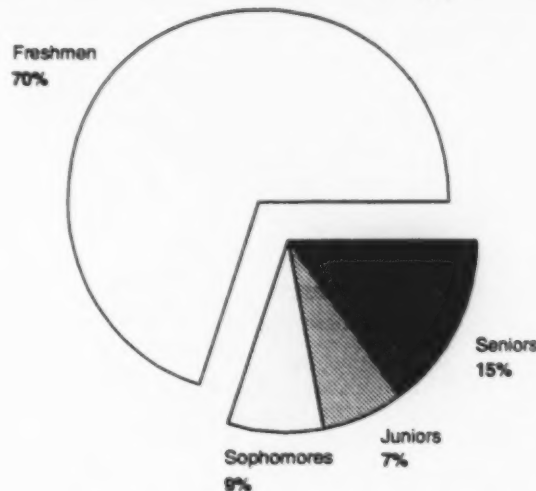
backgrounds and also are the first generation of their family to attend college. The 6-week program is intended to provide students with a developmental transition from high school to university life. SBP, which has about 300 students from diverse cultures, has two core components: an academic and a student development core. The academic core comprises a general education course, supported by reading, writing, and study skills components. The student development core focuses on personal development, housing, and physical education. Both components work together to improve students in various ways. For example, students receive help with time management from both the study group leaders and housing resident assistants. Students receive four academic credits for the general education course, which is not remedial, and three units of physical education credits.

Demographic Profile of Remedial Students

In fall 1995, School A's remedial course enrollees were mainly freshmen, younger and poorer than the school's other students. Freshmen accounted for 70 percent of the school's students taking remedial courses but only 22 percent of all students on campus. (See fig. II.1.) In addition, about 68 percent of School A's students who registered for remedial courses were under 20 years old. Moreover, School A students enrolled in remedial courses had family incomes 10 percent lower than other students (\$21,000 compared with \$19,000).

BEST COPY AVAILABLE

Figure II.1: School A—Mostly
Freshmen Enrolled in Remedial
Courses



Note: Percentages do not add to 100 due to rounding.

Hispanic students constituted about 42 percent of School A's campus population but accounted for about 59 percent of its remedial course enrollees in fall 1995. In addition, African Americans made up about 9 percent of the school's students, yet accounted for about 11 percent of students enrolled in remedial courses.²⁰

Profile of School B

School B, a large, southern, historically black public 4-year university, has a student body of approximately 7,000 undergraduates. We classified School B as a low remedial enrollment (28 percent of freshmen) and high per capita Pell grant award (\$788 average per student) institution. About 26 percent of its freshmen—10 percent of the student body—in fall 1995 participated in a special program called Retention Enhanced Education Program (REEP) that School B uses to enhance retention.

²⁰Conversely, Asians, accounting for 25 percent of the student body, represented only about 18 percent of all students who took remedial courses. White students accounted for 12 percent of the student body and 5 percent of students in such courses.

As a historically black institution, School B aims to provide access to students regardless of whether they took college preparatory courses in high school. Its admission standards are relatively modest, requiring a minimum grade-point average (GPA) of 2.0 and submission of Scholastic Achievement Test (SAT) or American College Testing (ACT) scores. School B's mission states that it will prepare its students to compete and succeed in various arenas, including the social, political, commercial, and professional. To achieve this, the university offers a broad-based core curriculum consistent with the needs of its students. To facilitate its mission and address the needs of students with academic deficiencies, School B began REEP in 1994.²¹ Before REEP, School B offered remedial courses informally through the school's departments.

REEP's Role

Campus officials described REEP as a comprehensive program that includes academic advising, mentoring, and other support services. REEP is designed for first-time, first-year students; transfer students may not participate. REEP is intended to help intellectually capable students who lacked exposure to typical academic preparatory courses address any academic deficiencies, ensuring their retention. According to campus officials, fall-to-fall retention of REEP students rose from 58 percent for fall 1994-95 freshmen to 64 percent the following year.

Implementation of REEP

School B requires all students to take pre-enrollment placement tests to determine their skill level. School B assigns students to REEP on the basis of a combination of placement test results, SAT scores, and high school GPA and curriculum. School B tests students twice—before and after enrollment—to ensure proper placement. School B requires students to enter REEP if they fail to meet standards for these criteria.

REEP offers three courses: Math 100, Fundamentals of General Mathematics; English 100A-B, Introduction to College Communication; and English 100C-D, Introduction to College Composition. Students receive four elective credits for each REEP course, but these courses do not count toward math or English graduation requirements. Students who excel in their REEP courses, however, may take 101-level coursework while enrolled in REEP. They may receive 101-level credit by taking an exam that allows them to register for a 102-level course the following semester.

²¹Although School B officials did not refer to REEP as a remedial program, its courses met our definition of remedial education courses.

Credit for the 101-level course does not count toward graduation requirements.

Generally, students have only one opportunity to pass a REEP course. To leave the program, REEP students must receive a passing grade in each course, attain an overall 2.0 GPA, and pass an exit test to show their competency upon completion of the program.

In 1996, School B began offering a summer program called REEP Plus. Students accepted to School B and identified as likely REEP candidates are advised to participate in REEP Plus. REEP Plus offers math and English courses, as well as seminars that cover topics such as career planning and time management. Campus officials said that REEP Plus helps students acclimate to a university setting. Although School B does not require prospective students to enroll in REEP Plus, those who participate must pass all REEP Plus courses to matriculate in the fall. Private and university funds finance REEP Plus.

REEP's Demographic Profile

REEP students were similar to other first-time freshmen in fall 1995 in age, race, gender, and family income. REEP students had lower SAT scores, however. They averaged an SAT score of 627; freshmen overall averaged a score of 679.

Profile of School C

School C is a large, east coast 4-year public institution with a total undergraduate enrollment of approximately 8,000 in fall 1995. We classified School C as a high remedial education enrollment (49 percent of freshmen) and a low per capita Pell grant award (\$279 average per student) school. In the fall 1995 term, 10 percent of its students enrolled in remedial courses.

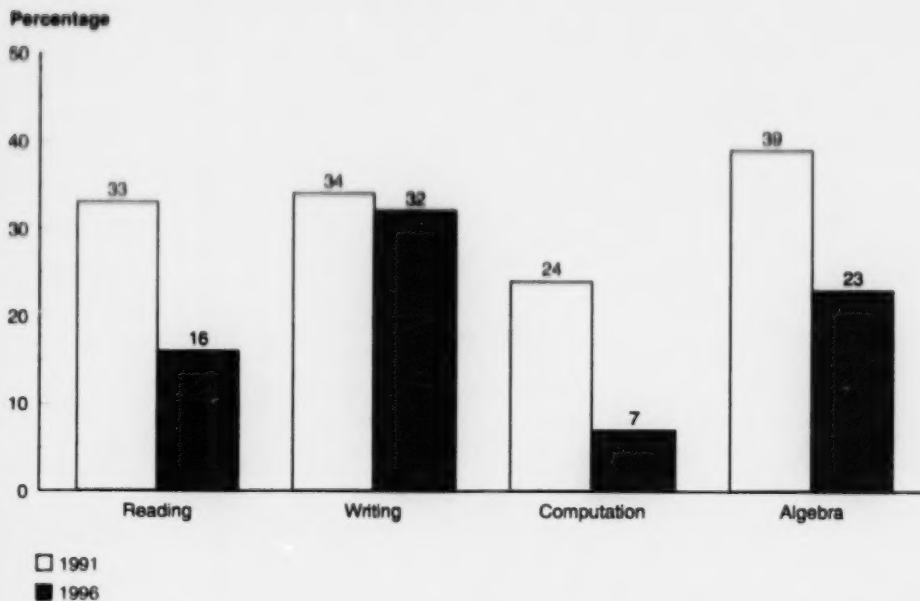
Representatives of School C classified their school as moderately selective. Generally, students must have completed college preparatory courses and submitted SAT or ACT results to be considered for admission. To improve access for underrepresented groups, however, School C has a special admissions program to facilitate access for nontraditional, minority, and economically disadvantaged students who do not meet usual academic standards.

In 1975, School C offered its first remedial course, a writing course. By 1977, it had added math and reading and formalized the program. School

Appendix II
Case Studies of the Use of Remedial
Programs at Nine Schools

officials said the number of students taking remedial coursework has declined in the past few years because of more stringent admissions criteria, a trend they anticipate continuing. For example, the portion of the school's incoming students who enrolled in remedial courses fell from 59 to 46 percent between fall 1991 and 1996. Figure II.2 shows how School C's remedial education enrollment in reading, writing, computation, and algebra decreased from 1991 to 1996.

Figure II.2: School C—Decrease in Need for Remedial Coursework



Along with other services, School C provides remedial education to improve and strengthen the transition between high school and college. In addition, it seeks to increase student retention and persistence to graduation by creating an integrated academic and student support service.

Implementation of
Remedial Programs

School C requires freshmen and students transferring with fewer than 25 college credits to take a statewide pre-enrollment placement test. School C

Appendix II
Case Studies of the Use of Remedial
Programs at Nine Schools

requires students to take remedial courses if indicated by test scores. Students may challenge reading and math test results by re-testing, however. In addition, students enrolled in remedial writing may forgo the course by writing an essay on the first day of class, which may place them in a college-level composition course.

School C limits the length of time students may enroll in remedial courses. In general, students must complete their remedial courses in 1 year. Special-admission students and those needing remedial courses in both computation and algebra, however, have an extra year to complete coursework. School C suspends students who fail to complete their coursework in the allotted time. Once a student is suspended, he or she has three options to regain good academic standing: (1) appeal to the school of major; (2) take courses at another school; or (3) remain at School C, taking only the needed remedial courses. These students must complete these remedial courses within a year or be dismissed without recourse.

School C offers support services for all students regardless of their enrollment in remedial or college-level courses. It also offers a summer pre-enrollment program for students in two programs: the Educational Opportunity Fund and the Minority Achievement Program.²² The summer program serves to acclimate students to the college environment. According to officials, most of these students need remedial courses and must attend the summer program to enroll in the fall. They only need to show progress in the program, however; they do not have to pass all courses. During the program, students typically take one or two remedial courses as well as a health and wellness course.

Demographic Profile of
Students

For the fall 1995 term, remedial enrollments consisted mostly of freshmen. (See fig. II.3.) In addition, racial minorities were overrepresented in remedial courses compared with their campuswide enrollments. Freshmen represented about 82 percent of all remedial course enrollments, yet only 18 percent of all students on campus.

²²The Minority Achievement Program enrolls qualified minority applicants on the basis of an evaluation of their secondary school achievements, recommendations, and assessments of their motivation to succeed. The Educational Opportunity Fund provides a college education to disadvantaged students. These students are admitted on criteria, such as financial need and academic promise, rather than academic achievement alone.

Figure II.3: School C—Mostly
Freshmen Enrolled in Remedial
Courses



Racial minorities constituted a larger share of students enrolled in remedial courses compared with their campuswide enrollments. Although accounting for only about 19 percent of the total student body, racial minorities constituted about 42 percent of all remedial students. Specifically, African Americans constituted 24 percent of remedial course enrollees, making up 11 percent of the total student body. Likewise, Hispanics and Asians constituted 11 and 7 percent of the students enrolled in these courses, accounting for only 5 and 3 percent of the total student body, respectively.²³

Profile of School D

School D, a small, private 4-year institution located in the Mid-Atlantic region, enrolled approximately 4,000 students in fall 1995. We classified School D as a high remedial enrollment (44 percent of freshmen) and low per capita Pell grant award (\$110 average per student) institution on the basis of preliminary data. In the fall 1995 term, 7 percent of all students enrolled in remedial courses.

School D is a selective institution, granting admission to each of its six colleges on the basis of academic preparation, achievement, recommendations, and SAT/ACT scores required for the particular college. School D refers some students who do not qualify for admission, but show

²³Students enrolled in remedial courses differed little from the total student body in average age and GPA. Officials could not provide income data for remedial course enrollees.

potential, to its summer enrichment program. This program, designed to help economically disadvantaged students, also helps the university meet its diversity goals. School D automatically admits students who successfully complete this program.

School D has offered remedial courses since 1970. Its officials said School D's mission is to "serve the educational needs of its students." This includes identifying students' educational needs, developing programs to meet those needs, and implementing these programs with credit and noncredit offerings. School officials view remedial programs as an integral part of School D's mission.

Implementation of Remedial Programs

Once accepted, first-time freshmen take mandatory pre-enrollment placement tests. In general, School D does not require transfer students to take placement tests. It does require, however, those who lack courses required by School D to take placement tests. Although students do not have to take remedial courses if indicated by test results, school officials strongly encourage them to. Students may appeal for a re-examination if they feel the placement test results do not reflect their true abilities. Also, faculty may recommend students' placement in remedial courses if they have difficulty with college-level courses.

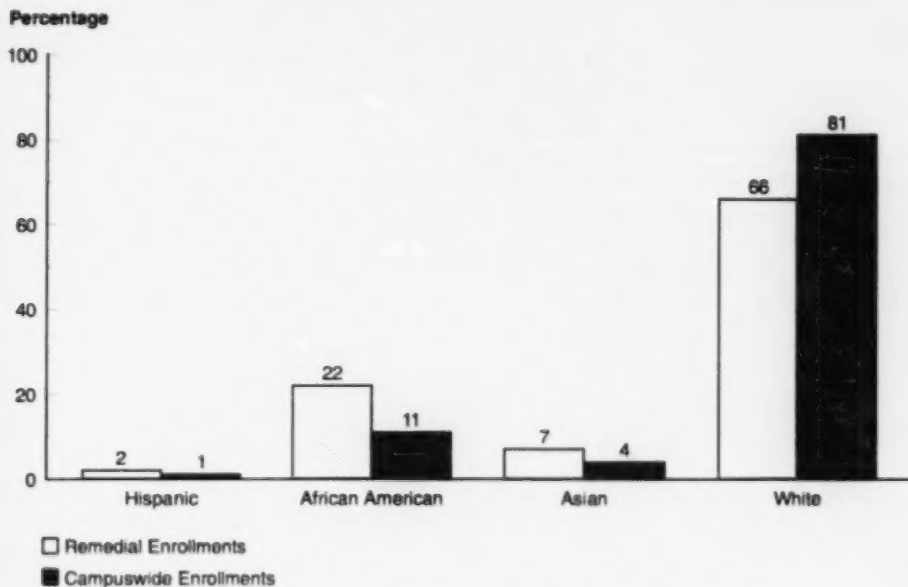
School D does not limit the number of remedial courses a student may take. Depending on the college, however, students may only apply up to three remedial credits toward their graduation requirements. A total of eight remedial courses are offered, three of which are intended for international students.

School D offers a summer enrichment program for applicants who show academic potential but lack the qualifications for admission. School D uses federal and state grants to help finance the program. The program's curriculum, which lasts 6-1/2 weeks, consists entirely of remedial courses. Though the program is almost 30 years old, school officials said they began requiring students to enroll in this program 6 years ago if indicated by their GPA or SAT scores. Approximately 90 percent of these students successfully complete the summer program and are offered admission to School D, officials said, and about 80 percent eventually matriculate. According to officials, an average of 8 percent of their students gained admission through this program.

Demographic Profile of Students

School D enrolled mostly freshmen and males in its remedial courses in the fall 1995 term. In addition, racial minorities constituted a larger share of remedial enrollments compared with their campuswide enrollments. (See fig. II.4.) Freshmen accounted for approximately 92 percent of School D's remedial course enrollees at that time but only 32 percent of all students on campus. In addition, males and minorities constituted a larger share of students enrolled in these courses compared with their campuswide enrollments. Although males made up about 45 percent of the total student body, they accounted for about 61 percent of the remedial course enrollees. Similarly, minorities constituted about 17 percent of the campus population but 32 percent of remedial course enrollees. Among racial minorities; African Americans, while accounting for 11 percent of the total student body, made up about 22 percent of all remedial course enrollees. Likewise, Asians made up 4 percent of the undergraduate enrollees, yet 7 percent of remedial course enrollees.

Figure II.4: School D—Remedial and Campuswide Enrollments Among Students by Race



Freshmen who enrolled in remedial courses in the fall 1995 term had lower SAT scores and GPAs than the total freshman class at the time. Table II.3 compares SAT scores and GPAs for freshmen who enrolled in remedial courses with those of the total freshman class.

Table II.3: Comparison of Average SAT Scores and Average GPAs Among Freshmen Enrolled in Remedial Courses and Total Freshman Class at School D, Fall 1995

Classification	Average SAT score	Average cumulative GPA
All freshmen	873	2.59
Freshmen enrolled in remedial courses	764	2.36

Profile of School E

School E is a large, private 4-year university located in the Northeast with a student body of approximately 9,000. We categorized School E as a low remedial enrollment (about 1 percent of freshmen) and a high per capita Pell grant award (\$347 average per student) institution. In the fall 1995 term, less than 1 percent of its students enrolled in remedial courses.

School E uses highly selective admissions criteria, officials said, because it chiefly prepares students for technical careers such as engineering, computer science, and information technology. Admissions policies vary by colleges within School E. In general, the school considers high school curriculum, rank, and GPA as well as SAT/ACT scores for admitting students. As a rule, School E does not accept students who do not meet these criteria; however, it occasionally makes exceptions on a case-by-case basis. For example, School E admits some nontraditional students without normally required college entrance examinations at the discretion of the director of admissions. These cases constitute less than 2 percent of total freshman applicants, officials said.

According to campus officials, because School E's mission is to prepare students for careers in technical professions, it does not consider remedial education a formal part of its mission. It does offer remedial courses, however, for students who encounter academic difficulty through a program known as the College Restoration Program (CRP), which began in 1972. Before that, School E only offered its less formal, noncredit supplemental courses for students on a walk-in basis.

Implementation of CRP

CRP is intended to address problems that inhibit academic success. Enrollment in CRP is optional for students on academic probation, but suspended students cannot continue at the school without enrolling in CRP.

School E reclassifies students as freshmen once enrolled in CRP, regardless of their previous classification. Students must complete CRP courses in one quarter.

The typical courseload for CRP students includes about five remedial courses and one to two college-level courses. CRP courses do not count toward graduation requirements. Five CRP courses cover topics such as learning theory, study skills, time management, personal development, and career exploration. The remaining two classes cover remedial English and math. The English course covers topics such as grammar, reading, writing, and critical thinking. The math course, specific to each student's major and proficiency, includes precalculus, Calculus I to IV, and differential equations.

School E provides special mentors for CRP students, a key component of CRP, according to officials. Faculty members mentor students at weekly meetings, where students can discuss their progress. Mentors make recommendations on the students' placement once CRP ends. Approximately 65 to 70 percent of CRP students either return to their original program or transfer to a new one.

Demographic Profile of Students

In the fall 1995 term, racial minorities constituted a larger share of students enrolled in CRP compared with their campuswide enrollments. Racial minorities accounted for only 23 percent of the freshman class but constituted 48 percent of CRP students. Asians accounted for 17 percent of CRP students, making up about 5 percent of the freshman class. In addition, African Americans and Hispanics made up 13 and 9 percent of CRP students, respectively, while accounting for 5 and 3 percent of the total freshman class, respectively.

Graduation Rate and Attainment Statistics

An analysis by School E showed that CRP students had lower graduation rates and took longer to graduate than other students.²⁴ The study reported that CRP students had a 29-percent graduation rate compared with 61 percent for others. The study also found that students who enrolled in remedial courses took a year longer than other students to graduate. Officials attributed this difference to the remedial courses taken in addition to courses required by their curriculum.

²⁴Data provided on the basis of a study of freshmen who entered School E from 1987 through 1989.

Profile of School F

School F is a small, private 4-year institution located in a large, midwestern urban area. We classified School F as a high remedial enrollment (90 percent of freshmen) and high per capita Pell grant award (\$350 average per student) institution. Of School F's approximately 1,000 students, about 12 percent enrolled in remedial courses in fall 1995.

School F accepts three types of students—high school graduates, nontransfer students, and transfer students—and the admissions criteria vary for each. High school graduates, those entering directly after completing high school, must have a GPA of at least 2.5 and score at least 850 on the SAT or 18 on the ACT. Those not meeting these criteria must take a placement test, which is used for both admissions and course-level placements. Nontransfer students, those entering after being out of high school at least a year, but who have never attended college, must take the placement test to matriculate, regardless of their high school GPA and SAT/ACT scores. Finally, transfer students—those entering who attended another college and transferred into School F with the equivalent of 24 semester hours and a minimum college GPA of 2.0—may transfer without taking the placement test; those not meeting both of these requirements must take the test to matriculate. Finally, all students must pass the state proficiency test to attend.

Its officials said School F's mission is to educate eligible students with diverse backgrounds, talents, and experiences to enter into, and advance in, professional business careers and to fulfill personal potential. School F's mission statement does not specifically refer to the provision of remedial coursework. Because School F administers remedial courses through the federal Student Support Services (SSS)²⁵ program, however, the program supports the school's mission to serve students from diverse backgrounds.

School F began offering remedial courses in the mid-1950s, first offering remedial composition and math. School F began offering credit for these courses in 1974, adding remedial reading by 1976. In fall term 1977, School F began receiving federal funding for these courses through SSS.

Implementation of SSS

After testing students in math, English, and writing, School F accepts students and places them into either college-level or remedial courses. Although School F does not require enrollment in remedial courses if

²⁵SSS is the same federal program as the aforementioned SSP program at School A; however, Schools A and E use different names for the program.

indicated through testing, the school strongly encourages students to do so.

sss uses a two-tier approach. Generally, students placed in the first tier require two semesters of remedial coursework; those in the second tier require only one. First-tier students take only remedial courses in their first semester. In contrast, second-tier students enroll in college-level and remedial courses in their first semester. Though students can earn 3 credits for each remedial course, School F only accepts 12 credits in remedial courses toward elective requirements for graduation. The school's credit policy for remedial courses has vacillated, switching between allowing degree credit and not doing so for several years. Officials said they decided to offer degree credit because students took exception to paying for classes without receiving credits.

School F limits the number of times a student may repeat a remedial course. Students who anticipate difficulty with a course may choose a pass/fail option rather than receive a conventional letter grade. This allows them to repeat the course without having their first attempt adversely affect their GPA. In addition, students may earn a "P" or "progress" grade in sss courses. This indicates that the student, while progressing satisfactorily in study skills, has not yet mastered the subject area. The P grade does not count in computing the GPA but does count in determining financial aid eligibility. Generally, a student may receive a P only twice, with exceptions granted by the sss director.

The school's affiliation with the TRIO program requires it to provide some specific services to sss students until they graduate to receive federal funding, officials said. For example, School F's part-time faculty members or tutors provide tutoring on a regular basis in English, math, and accounting. Other services include counseling, academic advising, and peer helpers. Although the Department of Education and School F fund these services for sss students, the school subsidizes the entire cost of tutoring and counseling for nonparticipants in sss.

Demographic Profile of Students

sss students predominately consisted of freshmen and racial minorities. Freshmen made up approximately 51 percent of sss students in the fall 1995 term, yet only 35 percent of all students on campus. Racial minorities constituted a larger share of students enrolled in these courses compared with their campuswide enrollments, making up 42 percent of the total student body but 87 percent of sss students. African Americans had the

largest representation, accounting for up 81 percent of sss students but constituting only about 39 percent of the total student body.

Although the school officials could not provide data on graduation rates for students enrolled in remedial courses, they said these students usually take 5 to 6 years to graduate. They explained that the school has many part-time students, however, who have no intention of finishing in 4 years.

Profile of School G

School G is a large community college located in a midwestern urban area. We classified School G as a high remedial enrollment (60 percent of freshmen) and a high per capita Pell grant award (\$1,134 average per student) institution. Our survey found that approximately 25 percent of the school's 6,700 students enrolled in remedial courses in fall 1995.

As a community college, School G has an open-admissions policy. Certain programs, such as allied health sciences, have selective admissions, however. In these cases, the state requires a high school or general equivalency diploma (GED) for admission. Students may apply to these vocational and technical programs after enrolling in School G and meeting certain curricular requirements.

School G's officials told us that remedial education is central to the school's mission, especially in providing access to its vocational and technical programs. As such, the school's mission statement specifically refers to providing remedial education to meet the educational needs of its students.

Implementation of Remedial Programs

School G administers a pre-enrollment placement test to all entering students seeking a degree or certificate; continuing education, international, and transfer students are not tested. Transfer students are placed in college-level courses according to test scores from previous institutions or by achieving a C or better in math, English, and writing courses. School G does not require students to take remedial courses even if test scores indicate the need. The school encourages students to do so, and most students follow this advice, officials said. Counselors also work with students to make sure they take the needed courses.

School G's remedial education curriculum consists of five English, one basic science, and four math courses. Students enrolled in the English courses have reading proficiencies that range from the fourth to the

twelfth grade level. Math courses address basic math through intermediate algebra. The typical courseload for students consists of one ninth grade level reading course, one writing course, and elementary algebra. Students receive three credits each for these courses, which, in some programs, may count toward graduation requirements.

School G's services are open to all students; none are set aside for students enrolled in remedial courses.

Profile of School H

School H is a large, northwestern public 2-year institution, which enrolled approximately 9,000 students in fall 1995. We classified School H as a high remedial enrollment (63 percent of freshmen) and a low per capita Pell grant award (\$220 average per student) institution. About 10 percent of its students enrolled in at least one remedial course in the fall 1995 term.

School H has an open-admissions policy, with no requirements for high school curriculum or GPA or SAT/ACT scores.²⁶ As such, School H provides remedial courses to help students achieve success in postsecondary education, officials told us. In fact, School H's mission statement specifically mentions providing remedial coursework to ensure success and address students' varying needs. Furthermore, School H's mission statement specifically states that it will provide remedial education to help students begin college-level coursework. School H has offered remedial instruction since 1962. Enrollments in these courses have always been high, officials said, and they expect that to continue.

Implementation of Remedial Programs

School H uses a variety of ways to determine the appropriate placement for its students. First, it requires students entering degree or certificate programs to complete an assessment of their reading, writing, and math skills. In addition, all entering students who have not completed college-level English at another accredited college or university and all students completing English as a Second Language take placement tests. Furthermore, enrollment in all but one math course requires one or more placement tests. School H requires students to take remedial courses if test scores indicate the need. Also, School H students enrolled in remedial writing courses must pass a post-test before enrolling in college-level courses.

²⁶To receive financial aid, students at School H must have a high school diploma or GED or pass an approved Department of Education Ability to Benefit test.

Depending on how many remedial courses students need, students may require one or more quarters of remedial coursework to improve their proficiency, according to school officials. Because students must take remedial courses sequentially, students needing a lot of such courses take longer to complete them. According to officials, however, most students take college-level coursework while enrolled in remedial courses. For example, students needing remedial math may be enrolled in humanities courses. Therefore, students earn credits toward graduation for college-level courses while taking remedial courses. All remedial courses are worth five institutional credits, and School H does not limit the remedial courses its students may take.

School H's remedial education curriculum focuses on English and math. It offers seven remedial math courses, including basic math skills, preparatory math, elementary algebra, and algebra review/intermediate algebra. According to officials, about 85 percent of all students who took the math placement test needed remedial math in fall 1995. In addition, School H offers eight remedial courses in English, which start at the tenth grade level. Courses include various levels of reading, study skills, and writing. In addition, students enrolled in remedial English courses must concurrently enroll in a language lab to get additional help with their coursework. In the language lab, students receive help both individually and in small groups, along with computer-assisted instruction. Students receive two institutional credits for the language lab. About 50 percent of all students who took the English placement test needed remedial English in fall 1995.

Profile of School I

School I is a large, midwestern public 2-year institution. We classified School I as a low remedial enrollment (26 percent of freshmen) and a high per capita Pell grant award (\$487 average per student) institution. Of approximately 10,000 students attending in fall 1995, about 12 percent took remedial coursework.

As a community college, School I has an open-admissions policy, automatically admitting applicants with high school diplomas and non-high school graduates 19 years of age and older. Applicants under 19 years old who are not high school graduates must have a GED.²⁷

²⁷School I also has admission criteria for high school students seeking dual enrollment in high school and college.

School I's remedial education program helps promote access to higher education, according to school officials. The school began offering remedial courses in 1956, first offering refresher courses for math and English. By the 1958-59 academic year, School I expanded course offerings to include basic writing and reading and beginning algebra. Through remedial coursework, students gain the skills needed to enter 4-year institutions or the workplace, officials said. Remedial courses not only provide basic skills, but also increase students' self-confidence, according to officials.

Implementation of Remedial Programs

School I administers mandatory placement tests to all entering students before they register for classes, including transfer students with fewer than 30 credits. Once test scores are tabulated, advisers or counselors meet with students to make recommendations regarding placement. School I does not require students to enroll in remedial courses if test scores indicate the need; however, most students follow the advisers' recommendations.

In fall 1995, School I offered six remedial courses in English and three in math. Each English course is worth 3 credits, and students may elect to use up to 12 remedial credits as electives. Among the English courses, areas covered include spelling, reading, basic English, basic sentence skills, and basic writing. The proficiency level for the reading courses begins at the fifth grade. Of the math courses, one primarily serves liberal arts students, for which students may receive a satisfactory or unsatisfactory grade. This course, worth five credits and meeting weekly for 5 contact hours, covers whole number operations, fractions, and equations. The remaining courses—applied mathematics and introductory technical algebra—serve students in technical-vocational programs.

The applied mathematics course helps students with the typical mathematical problem-solving needs of the technical/trade area. Course topics include fractions, decimals, measurement, signed numbers, geometry, and trigonometric functions. Students earn three credits and meet weekly for 4 contact hours for this course. Introductory technical algebra covers the fundamental concepts in algebra, linear equations, quadratic equations, and geometric equations. Students earn four credits and meet weekly for 4 contact hours for this course. Students receive a grade for these courses, although grades are generally not transferable.

School I has no limits on the number of remedial courses a student may take. It does limit students, however, to three opportunities to repeat a course if they do not initially succeed. After that, to enroll in the course, students must have a counselor's written approval. Nonetheless, students only earn credit for taking the course once. The grade earned during their final attempt, which supplants all earlier attempts, is the only grade that affects their GPA if students earn grades in the course. School I also has a policy requiring students to complete remedial coursework before earning no more than 22 hours of credit at the school. The school does not rigorously enforce this policy at this time, however, officials said.

School I offers several services for all of its students. None specifically serves those who enroll in remedial courses.

Demographic Profile of Students

Both freshmen and racial minorities constituted a larger share of School I's remedial course enrollments compared with their campuswide enrollments in fall 1995. Freshmen accounted for approximately 94 percent of all remedial course enrollees but only 68 percent of all students on campus. In addition, racial minorities constituted 20 percent of the student body, yet 35 percent of students enrolled in remedial courses.

GAO Contacts and Staff Acknowledgments

GAO Contacts

Joseph J. Eglin, Jr., Assistant Director, (202) 512-7009
Tamara A. Lumpkin, Evaluator-in-Charge, (202) 512-5699
James W. Spaulding, Senior Evaluator, (202) 512-7035

Acknowledgments

The following team members contributed significantly to this report: Wayne B. Upshaw, Assistant Director; Charles J. Appel, Benjamin F. Jordan, Jr., Nancy Kintner-Meyer, Gene Kuehneman, Arthur Merriam, Carol Patey, and Timothy Silva, senior evaluators; Catherine Baltzell and Wayne Dow, methodologists; Daniel Schwimer, attorney; and Brady Goldsmith, summer intern.

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. VISA and MasterCard credit cards are accepted, also. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.



United States
General Accounting Office
Washington, D.C. 20548-0001

Bulk Rate
Postage & Fees Paid
GAO
Permit No. G100

Official Business
Penalty for Private Use \$300

Address Correction Requested

SHIP TO:
CHRISTINA ROWSOME
ERIC PROCESSING & REF FACILITY
2ND FL
1100 WEST ST
LAUREL MD 207073587

Request # 3901782 25 3

08/28/97 / 08:18 m
08/28/97 / 21:25 f



3901782011p205
Item Document Number
1 HEHS-97-142